

Duffield 2003-0207

### R E M A R K S

Claim 1 contains a typographical error which was not previously discovered by either the applicant or the Examiner. Although this is a response after final, applicants amend claim 1 to correct the typographical error.

Claims 1-18 were rejected under 35 USC 102 as being anticipated by Jorgensen, US Patent 6,862,622. Applicants respectfully traverse.

Regarding claim 1, it is rejected with the very same language that was used in the previous Office action. The only difference is that in the previous Office action the concluding support for the rejection, relative to the second clause of claim 1, was the citation "col.15, lines 9-17," whereas in the instant Office action the support relative to the same clause is:

col.15, lines 9-17; Differentiated service classes are statistically categorized according to types, qualities, and classes of service. Moreover, the assignment of differentiates service classes are based on rules at least associated with priority, quality and cost. Packet assignments are based on speed and latency -- for example -- which are directly and indirectly derived/based on packet attributes (e.g., identified voice packets have low latency threshold and are assigned higher priority QOS treatments than data packets).

As will be demonstrated below, applicants believe that the Examiner's remarks find no justification in the cited paragraph or in the remainder of the reference.

First, it is noted that the paragraph cited by the Examiner is part of a tutorial presented by the reference, and does not pertain particularly to the information described thereafter which forms the basis for the patent's claims. This tutorial starts at col. 11, line 17, where section III A begins, and at col. 12 there is a subsection "**1. Quality,**" a subsection "**2. Service,**" and the beginning of subsection "**3. QOS as a Mechanism.**" At col. 14 (line 44) there is a subsection "**4. Service Guarantees and Service Level Agreements (SLAs),**" and at col. 15 there is the subsection "**5. Class of Service and Quality of Service.**" It is the last paragraph of this subsection (and of section III A) that the Examiner cites.

The fact that the cited paragraph is part of a tutorial is NOT viewed by applicants as somehow less than a bona fide teaching. It is a teaching, and whatever is taught must be recognized. However, because it is a general tutorial, one must recognize that any

Duffield 2003-0207

hints, suggestions, capabilities or notions that are mentioned in the tutorial are not necessarily developed any further in the sections that follow.

The cited paragraph states:

Currently, there are several methods that can be used in wireline network devices to implement differentiated service classes. Example methods include traffic shaping, admission control, IP precedence, and differential congestion management. It is desired that an IP-centric wireless broadband access system use all of these methods to differentiate traffic into classes of service, to map these classes of service against a QoS matrix, and thereby to simplify the operation and administration of the QoS mechanism.

This paragraph teaches the notion of mapping QoS to classes of service, and teaches some of the methods that may be used to implement different classes of service. To rephrase, this paragraph teaches what may be done to effectively *create the different classes of service*; not what to assign, or how to assign anything to any particular class of service. This paragraph also expresses the thought that an IP-centric wireless access system should use all of the mentioned methods to differentiate traffic into classes of service.

That is all that this paragraph teaches and, therefore, applicants respectfully repeat the assertions made in the previous Amendment; to wit.

- (a) This paragraph does not teach assigning a packet to one of preselected QoS treatments (or classes of service) based on an attribute of the packet. Indeed, it does not actually teach assigning packets to a class of service. Moreover, the notion of packets is only implied through the mentioning of IP.
- (b) Aside from the fact that this paragraph does not teach assigning packets, it certainly does not teach assigning is in accord with a set of rules.
- (c) Aside from the fact that this paragraph does not teach assigning packets according to a set of rules, there are no rules mentioned in the paragraph, and certainly no rules are mentioned that were created pursuant to statistical analysis of traffic in the network.

In contradistinction, the second clause of claim 1 specifies all of these limitations.

Applicants recognize that perhaps elsewhere in the reference these notions are taught, and somehow were overlooked. but applicants believe that this is not the case.

The important point to note is that these limitations are NOT found in the paragraph that

Duffield 2003-0207

the Examiner chose to cite, and the Examiner has not cited any passages as teaching what claim 1 specifies.

Another important point to note is that the Examiner has NOT outright disagreed with applicant's assertions but, rather made remarks. It is not clear whether the Examiner is asserting that this is what is known in the art. or that this is what is taught in the reference. If the latter, the Examiner ought to have pointed to passages that teach what the Examiner's remarks convey.

The Examiner's above-quoted remarks for justifying the rejection are now considered.

1. The Examiner's remark: "Differentiated service classes are statistically categorized according to types, qualities, and classes of service."

Response: There is absolutely no support for the assertion that the cited paragraph teaches or suggests any "categorizing according to type" (if that is what the Examiner is asserting), much less statistical categorization. Applicants believe that there is no support anywhere else in the reference for the notion of "statistical categorization" and, as indicated above, the Examiner has not cited any other passage in support of this statement. Actually, the word "statistic" (which subsumes "statistical," statistics, and other words that can be described as "statistic\*" where the "\*" is the conventional "wild card") is found in the reference only in the paragraph

FIGS. 12M, 12N and 12O depict an exemplary ODB 1242 in detail. This field is used to store information regarding the connection between the wireless base station 302 and the CPE station 294. ODB 1242 includes preamble 1234a (including link integrity data), subscriber ID 1234b (identifies which CPE station 294 is making the reservation request), system state 1248a (information about the status of the CPE station 294), performance data 1248b (how full the buffer statistics, cpe processor performance statistics, system state), antenna data 1248c (information pertaining to the antenna), CRC 1234e (error checking information) and synchronization pattern 1248d (error checking information). (emphasis supplied)

Clearly, the above paragraph does not address statistical categorization of packets.

2. The Examiner's remark: "Moreover, the assignment of differentiates service classes are based on rules at least associated with priority, quality and cost."

Response: Not only is there nothing in the cited paragraph that mentions assignment of packets, there is no mention of any rules.

Duffield 2003-0207

In the remainder of the reference, there are 10 instances where the word “rule” appears (col. 28, line 66; col. 50, lines 11 and 14; col. 62, lines 27 and 30, col. 68, lines 23, 25; and col. 78, lines 42, 43, and 47). NONE of them teach or suggest assigning packets to a particular QoS treatment based on rules. It is not known where the Examiner got the notion of assigning “based on rules at least associated with priority, quality and cost. (emphasis supplied).

3. The Examiner’s remark: “Packet assignments are based on speed and latency – for example – which are directly and indirectly derived/based on packet attributes (e.g., identified voice packets have low latency threshold and are assigned higher priority QOS treatments than data packets).

Response: There is no support for the Examiner’s remark anywhere in the cited paragraph. As indicated above, the Examiner has not identified anywhere else in the reference where this is taught. It is noted that “low latency threshold” is not found in the reference, and that low latency threshold would be an attribute of the application to which the packet belongs – such as voice-over-IP. This is NOT a criterion that can be characterized as a rule “that was created pursuant to a statistical analysis of traffic in the network.” Put another way, even the example employed by the Examiner demonstrates that the notion of statistical analysis of traffic in the network in order to create rules is not taught by the reference.

Apropos of the “statistical analysis” notion, it is respectfully submitted that the Examiner ought to take note that it specifies statistical analysis of traffic in the network, as compared to perhaps some other statistical analysis in some other reference.

Based on the above, it is respectfully submitted that claim 1 is not anticipated by the Jorgensen et al reference, and neither are the claims that depend on claim 1.

As for independent claim 13, the Examiner justification for the rejection is identical to the one discussed above. It is respectfully submitted that applicants’ rebuttal relative to claim 1 applies to claim 13 with equal force. Indeed, relative to the “traffic on said network” notion, claim 13 is even more explicit, specifying “analysis of past traffic on said network.” Applicants respectfully submit, therefore, that claim 13 is not anticipated by the Jorgensen et al reference.

Duffield 2003-0207

Independent claim 14 is directed to the creation of the aforementioned rules, yet the Examiner is still citing the col. 15, lines 9-17 paragraph, and the identical explanation for the rejection. Applicants respectfully submit that there is nothing in the cited paragraph, nothing in the Jorgensen et al reference, and indeed nothing in the Examiner's comments that pertains to the creation of "a corpus of data for creating set of rules for assigning packets for different QoS treatments." Therefore, applicants respectfully submit that claim 14 is not anticipated by the Jorgensen et al reference, and neither are the claims that depend on claim 14.

In light of the above, applicants respectfully submit that all of the Examiner's rejections have been overcome. Reconsideration and allowance are respectfully solicited.

Respectfully,  
Nicolas G. Duffield  
Matthew Roughan  
Subhabrata Sen  
Oliver Spatscheck

Dated: 9/16/08

By Henry T. Brendzel  
Henry T. Brendzel  
Reg. No. 26,844  
Phone (973) 467-2025  
Fax (973) 467-6589  
email brendzel@comcast.net